

REMARKS

The Examiner is thanked for the thorough review and consideration of the present application. The non-final Office Action dated June 17, 2004 has been received and its contents carefully reviewed.

By this Response, Applicants have amended claims 1, 10, 15, 19, 22 and 29. No new matter has been added. Claims 1, 2 and 4-36 are pending in the application. Reconsideration and withdrawal of the rejections in view of the above amendments and the following remarks are requested.

In the Office Action, claims 1, 10, 15, 22 and 29 are objected to because of informalities. Applicants have amended the claims. Accordingly, the objection is overcome. Withdrawal of the rejection is respectfully requested.

In the Office Action, claims 1, 6-10, 15-18, 22, 26-30, 35 and 36 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,978,061, issued to Miyazaki et al. (hereafter "Miyazaki"). Applicants respectfully traverse the rejection because Miyazaki fails to teach or suggest each and every feature recited in the claims of the present application. For example, Miyazaki fails to teach or suggest a method for fabricating a liquid crystal display (LCD) that includes, among other features "radiating light on the oriented films on the first substrate and on the second substrate to orient and bond the oriented films to each other, whereby the first substrate and the second substrate are bonded together" as recited in independent claim 1 of the present application.

The Office Action relies upon Figs. 9-10 of Miyazaki for teaching the recited features of the present application. However, Applicants note that Miyazaki, like the Related Art described in the present application, uses separate processes for orientation, bonding and mechanical rubbing. Specifically, in Figs. 9 and 10 of Miyazaki, "the rubbing process is conducted, thereby forming the orientation film 21" (col. 10, lines 44-46). And, "the orientation film 35 is deposited by executing the rubbing process, thus completing the opposite substrate 30. After this processing, the sealing material is printed on the side of the opposite substrate 30, and the active matrix substrate 10 and the opposite substrate 30 are disposed to make a angle of 90° in their orientation directions. Then, the sealing material 37 is hardened by heating, those substrates are bonded, and the liquid crystal 40 permeates therebetween, thus obtaining a desired liquid crystal display device" (col. 11, lines 20-31, emphasis added). Thus, separate steps are used in

Miyazaki for the orientation process, hardening of the sealing material and bonding of the substrates.

The Office Action also erroneously relies upon col. 1, lines 36-39 of Miyazaki, which merely states “[t]he sealing agent involves the use of, e.g., a bonding agent of a heat hardening type or an ultraviolet ray hardening acrylic or epoxy group.” Applicants respectfully submit this passage does not teach “radiating light... to orient and bond the oriented films to each other, whereby the first substrate and the second substrate are bonded together” as recited in independent claim 1 of the present application.

Based upon the above discussion, Miyazaki fails to teach or suggest “radiating light on the oriented films on the first substrate and on the second substrate to orient and bond the oriented films to each other, whereby the first substrate and the second substrate together are bonded together” as recited in claim 1. As such, independent claim 1 and its dependent claims 6-9 are allowable over Miyazaki.

Claim 10 is allowable over Miyazaki because Miyazaki fails to teach or suggest a method for fabricating an LCD including, among other features, “radiating light on the first oriented film and on the second oriented film to orient and bond the first and second oriented films to each other, whereby the first substrate and the second substrate are bonded together” as recited in independent claim 10. Because Miyazaki fails to teach or suggest at least these features recited in independent claim 10, claim 10 and its dependent claim 13 are allowable over Miyazaki.

Claim 15 is allowable over Miyazaki because Miyazaki fails to teach or suggest a method for fabricating a liquid crystal display that includes, “radiating light on the oriented films to orient and bond the oriented films to each other, whereby the first substrate and the second substrate are bonded together” as recited in independent claim 15. Because Miyazaki fails to teach or suggest at least these features of claim 15, independent claim 15 and its dependent claims 16-18 are allowable over Miyazaki.

Claim 22 is allowable over Miyazaki because Miyazaki fails to teach or suggest a liquid crystal display “wherein a radiating light on the contacting alignment films orients and bonds the first and second alignment films, whereby the first substrate and the second substrate are bonded together” as recited in independent claim 22. Because Miyazaki fails to teach or suggest at least these features of independent claim 22, claim 22 and its dependent claims 26-28 are allowable over Miyazaki.

Claim 29 is allowable over Miyazaki because Miyazaki fails to teach or suggest a liquid crystal display “wherein the first alignment film contacts the second alignment film such that a radiating light on the contacting films orients and bonds the first and second alignments films to each other, whereby the first substrate and the second substrate are bonded together” as recited in independent claim 29. Because Miyazaki fails to teach or suggest at least these features of claim 29, independent claim 29 and its dependent claims 30, 35 and 36 are allowable over Miyazaki.

Reconsideration and withdrawal of the rejection of claims 1, 6-10, 15-18, 22, 26-30 and 35-36 under 35 U.S.C. § 102 are respectfully requested.

In the Office Action, dependent claims 2, 12, 23 and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki in view of U.S. Patent No. 5,808,716, issued to Gass et al. (hereafter “Gass”); dependent claims 4, 14, 20, 24 and 33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki in view of U.S. Patent No. 4,734,218, issued to Takuma et al. (hereafter “Takuma”); dependent claims 5, 21, 25 and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki in view of U.S. Patent No. 5,724,113, issued to Bryan-Brown et al. (hereafter “Bryan-Brown”); and dependent claims 11, 19 and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki in view of U.S. Patent No. 5,729,312, issued to Yamagishi et al. (hereafter “Yamagishi”). Applicants respectfully traverse the rejections because neither Miyazaki, Gass, Takuma, Bryan-Brown, nor Yamagishi, analyzed alone or in any combination, teaches or suggests the combined features recited in the claims of the present application.

Specifically, Gass, Takuma, Bryan-Brown and Yamagishi fail to teach or suggest a method for fabricating a liquid crystal display (LCD) that includes “radiating light on the oriented films on the first substrate and on the second substrate to orient and bond the oriented films to each other, whereby the first substrate and the second substrate are bonded together” as recited in independent claim 1, from which claims 2 and 4-5 depend. Because Gass, Takuma, Bryan-Brown and Yamagishi fail to teach or suggest at least this feature of claim 1, Gass, Takuma, Bryan-Brown and Yamagishi fail to remedy the deficient teachings of Miyazaki such that one of ordinary skill in the art would be motivated by the teachings of Gass, Takuma, Bryan-Brown and Yamagishi to modify the device of Miyazaki to obtain the combined features

recited in independent claim 1. Accordingly, claim 1 and its dependent claims 2 and 4-5 are allowable over any combination of Miyazaki, Gass, Takuma, Bryan-Brown and Yamagishi.

Claim 10 is allowable over Gass, Takuma, Bryan-Brown and Yamagishi because Gass, Takuma, Bryan-Brown and Yamagishi fail to teach or suggest a method for fabricating an LCD that includes “radiating light on the first oriented film and on the second oriented film to orient and bond the first and second oriented films to each other, whereby the first substrate and the second substrate are bonded together” as recited in independent claim 10. Because Gass, Takuma, Bryan-Brown and Yamagishi fail to teach or suggest at least this feature of independent claim 10, Gass, Takuma, Bryan-Brown and Yamagishi fail to remedy the deficient teachings of Miyazaki such that one of ordinary skill in the art would be motivated by the teachings of Gass, Takuma, Bryan-Brown and Yamazaki to modify the device of Miyazaki to obtain a method for fabricating an LCD having the combined features recited in independent claim 10 of the present application. Accordingly, claim 10 and its dependent claims 11, 12 and 14 are allowable over any combination of Miyazaki, Gass, Takuma, Bryan-Brown and Yamagishi.

Claim 15 is allowable over Gass, Takuma, Bryan-Brown and Yamagishi because Gass, Takuma, Bryan-Brown and Yamagishi fail to teach or suggest a method for fabricating an liquid crystal display that includes “radiating light on the oriented films to orient and bond the oriented films to each other, whereby the first substrate and the second substrate are bonded together” as recited in independent claim 15. Because Gass, Takuma, Bryan-Brown and Yamagishi fail to teach or suggest at least this feature of independent claim 15, Gass, Takuma, Bryan-Brown and Yamagishi fail to remedy the deficient teachings of Miyazaki such that one of ordinary skill in the art would be motivated by the teachings of Gass, Takuma, Bryan-Brown and Yamazaki to modify the device of Miyazaki to obtain a method for fabricating an liquid crystal display having the combined features recited in independent claim 15 of the present application. Accordingly, claim 15 and its dependent claims 19-21 are allowable over any combination of Miyazaki, Gass, Takuma, Bryan-Brown and Yamagishi.

Claim 22 is allowable over Gass, Takuma, Bryan-Brown and Yamagishi because Gass, Takuma, Bryan-Brown and Yamagishi fail to teach or suggest a liquid crystal display “wherein a radiating light on the contacting alignment films orients and bonds the first and second alignment films to each other, whereby the first substrate and the second substrate are bonded together” as recited in independent claim 22. Because Gass, Takuma, Bryan-Brown and

Yamagishi fail to teach or suggest at least this feature of independent claim 22, Gass, Takuma, Bryan-Brown and Yamagishi fail to remedy the deficient teachings of Miyazaki such that one of ordinary skill in the art would be motivated by the teachings of Gass, Takuma, Bryan-Brown and Yamazaki to modify the device of Miyazaki to obtain a liquid crystal display having the combined features recited in independent claim 22 of the present application. Accordingly, claim 22 and its dependent claims 23-25 are allowable over any combination of Miyazaki, Gass, Takuma, Bryan-Brown and Yamagishi.

Claim 29 is allowable over Gass, Takuma, Bryan-Brown and Yamagishi because Gass, Takuma, Bryan-Brown and Yamagishi fail to teach or suggest a liquid crystal display "wherein the first alignment film contacts the second alignment film such that a radiating light on the contacting films orients and bonds the first and second alignment films to each other, whereby the first substrate and second substrate are bonded together" as recited in independent claim 29. Because Gass, Takuma, Bryan-Brown and Yamagishi fail to teach or suggest at least this feature of independent claim 29, Gass, Takuma, Bryan-Brown and Yamagishi fail to remedy the deficient teachings of Miyazaki such that one of ordinary skill in the art would be motivated by the teachings of Gass, Takuma, Bryan-Brown and Yamazaki to modify the device of Miyazaki to obtain a method for fabricating an LCD having the combined features recited in independent claim 29 of the present application. Accordingly, claim 29 and its dependent claims 31-34 are allowable over any combination of Miyazaki, Gass, Takuma, Bryan-Brown and Yamagishi.

Reconsideration and withdrawal of the rejections under § 103(a) are respectfully requested.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If the Examiner deems that a telephone conversation would further the prosecution of this application, the Examiner is invited to call the undersigned at (202) 496-7500.

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If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

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